SANTA CRUZ BIOTECHNOLOGY, INC.

CNP (H-115): sc-20952

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Natriuretic peptides comprise a family of three structurally related molecules: atrial natriuretic peptide (ANP), brain natriuretic peptide (BNP) and C-type natriuretic peptide (CNP). ANP and BNP act mainly as cardiac hormones, produced primarily by the atrium and ventricle, respectively, while the gene encoding C-type natriuretic peptide is expressed mainly in the brain. These peptides possess potent natriuretic, diuretic and vasodilating activities and are implicated in body fluid homeostasis and blood pressure control. ANP, BNP and CNP are highly homologous within the 17-residue ring structure formed by an intramolecular disulfide linkage. The genes which encode for ANP and BNP map to human chromosome 1p36.2. The gene which encodes for CNP maps to human chromosome 2q37.1.

REFERENCES

1. Yang-Feng, T.L., et al. 1985. The pronatriodilatin gene is located on the distal short arm of human chromosome 1 and on mouse chromosome 4. Am. J. Hum. Genet. 37: 1117-1128.
2. Ogawa, Y., et al. 1994. Molecular cloning and chromosomal assignment of the mouse C-type natriuretic peptide (CNP) gene (Nppc): comparison with the human CNP gene (NPPC). Genomics 24: 383-387.

CHROMOSOMAL LOCATION

Genetic locus: NPPC (human) mapping to 2q37.1; Nppc (mouse) mapping to 1 D.

SOURCE

CNP (H-115) is a rabbit polyclonal antibody raised against amino acids 1-115 of CNP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

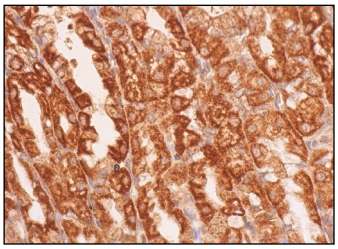
CNP (H-115) is recommended for detection of CNP precursor and all active peptides of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CNP siRNA (h): sc-43690, CNP siRNA (m): sc-142440, CNP shRNA Plasmid (h): sc-43690-SH, CNP shRNA Plasmid (m): sc-142440-SH, CNP shRNA (h) Lentiviral Particles: sc-43690-V and CNP shRNA (m) Lentiviral Particles: sc-142440-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CNP (H-115): sc-20952. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Cai, Y.L., et al. 2009. C-type natriuretic-peptide-potentiated relaxation response of gastric smooth muscle in streptozotocin-induced diabetic rats. World J. Gastroenterol. 15: 2125-2131.
2. Tezcan, B., et al. 2010. Dose dependent effect of C-type natriuretic peptide signaling in glycosaminoglycan synthesis during TGF-β1 induced chondrogenic differentiation of mesenchymal stem cells. J. Mol. Histol. 41: 247-258.
3. Kocamaz, E., et al. 2012. Implication of C-type natriuretic peptide-3 signaling in glycosaminoglycan synthesis and chondrocyte hypertrophy during TGF-β1 induced chondrogenic differentiation of chicken bone marrow-derived mesenchymal stem cells. J. Mol. Histol. 43: 497-508.

RESEARCH USE

For research use only, not for use in diagnostic procedures.